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Responsive to 04 May 2005 Office Action

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-9 (Cancelled)

Claim 10 (Currently Amended) A data-randomizing method for an optical disk apparatus adapted to record data on recording medium by light, and read data ~~enfrom~~ the recording medium by utilizing a difference in reflectance, comprising:

adding seed data for randomizing, to subject data to be recorded on the recording medium, and

determining at least one bit randomized data by operating at least one bit data added seed data to the subject data and multiple bit randomized data which was made from at least one bit data added seed data and multiple randomized bit data,

wherein ~~thea~~ different value of seed data is used as the seed data ~~infor~~ every time of rewriting data.

Claim 11 (Currently Amended) A decoding method for randomizing data used in an optical disk reading apparatus adapted to read randomized data by the method according to claim 10, comprising determining one-bit de-randomized data by an operation using multiple bit randomized data.

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Claim 12 (Currently Amended) An optical disk recording medium for recording data by light, and enabling reading data recorded thereon by utilizing a difference in reflectance, in which data is randomized and written thereon by:

adding seed data for randomizing data, to subject data to be recorded on the optical disk recording medium; and

determining at least one-bit randomized data by operation using at least one-bit data to be added by seed data to the subject data and multiple-bit randomized data which was made from at least one bit data added seed data and multiple randomized bit data.

wherein the seed data is data which is produced by using a different value for every time of rewriting data.

Claim 13 (Previously Presented) An optical disk apparatus using the data-randomizing method according to claim 10, wherein data recorded on the recording medium is data recorded by adding error corrected code after randomizing by the data-randomizing method.

Claim 14 (Currently Amended) An optical disk apparatus for reading data recorded by using the method data-randomizing according to claim 10, wherein the subject data which is added by error correction code to be read from the recording medium is de-randomized data after error correction.

Claim 15 (Currently Amended) A data-randomizing method for an optical disk apparatus adapted to record data on recording medium by light, and read the data on the recording medium by utilizing a difference in reflectance, adding randomized data based on seed data to user data by performing an exclusive OR operation of a first data randomizing

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method to produce first randomized data, which is randomized by ~~thea~~ second data-randomizing method according to claim 1.

Claim 16 (Previously Presented) A data-randomizing method according to claim 10, wherein data is randomized in every fixed unit, and data of a fixed unit contains address identification information including at least ID, user data, and an error detection code.

Claim 17 (Previously Presented) A data-randomizing method according to claim 10, wherein data is randomized in every fixed unit, and data of a fixed unit contains seed data, address identification information including at least ID, user data, and an error detection code.

Claim 18 (Previously Presented) A data-randomizing method according to claim 10, wherein data is randomized in every fixed unit for recording, and seed data is placed in front of a synchronous signal.

Claim 19 (Previously Presented) An optical disk apparatus according to claim 13, wherein an order of data arrangement for data randomizing is similar to an order of an error correction code word for decoding.

Claim 20 (Currently Amended) An optical disk apparatus using the data-randomizing method according to claim 10, wherein subject data recorded on the recording medium is recorded by adding an error correction code, data-randomization is performed after the error correction coding, and an order of data arrangement for data randomizing is similar to an order of recording data on the recording medium.

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Claim 21 (New) A data-randomizing method for an optical disk apparatus adapted to record data on recording medium by light, and read data from the recording medium by utilizing a difference in reflectance, comprising:

adding seed data for randomizing, to subject data to be recorded on the recording medium, and

determining at least one bit randomized data by operating at least one bit data added seed data to the subject data and multiple bit randomized data,

wherein a different value of seed data is used as the seed data for every time of rewriting data.

Claim 22 (New) An optical disk recording medium for recording data by light, and reading data recorded on the optical disk recording medium by utilizing a difference in reflectance, in which data is randomized and written thereon by:

adding seed data for randomizing data, to subject data to be recorded on the optical disk recording medium; and

determining at least one-bit randomized data by operation using at least one-bit data to be added by seed data to the subject data and multiple-bit randomized data,

wherein the seed data is data which is produced by using a different value for every time of rewriting data.